

Non-Storm Water Discharge Best Management Practices (BMP) Plan

This Ukiah Non-Storm Water Discharge Best Management Practices (BMP) Plan is being submitted as required by the City of Ukiah Implementation Plan and sets forth approved protective measures that are required of all applicable discharges in order to minimize or prevent the effects of non-storm water discharges to the City of Ukiah's storm drain system. Additionally, a number of programs serve to mitigate such concerns. These include:

1. Redwood Empire Hazardous Incident Team (REHIT) provides response and directs cleanup of spills of hazardous materials.
2. Visual flow monitoring by Public Works field crews who report any unusual conditions in storm drain flows or local waterways to respective supervisors.
3. Ongoing water conservation and recycled water inspection programs that investigate and respond to calls concerning water waste, irrigation overspray, runoff and overwatering.

Categories of Non-Storm Water Discharges:

1. Stream diversions permitted by the State or Regional Water Board where such flows are intentionally diverted into the storm drain system.

Conditions under which allowed:

- All feasible alternatives to discharge of non storm water flow have been considered, including discharging to sewer, and are not possible.
- Provided that all necessary permits, or authorizations, are received and all permit conditions are in place prior to diverting the flow.

Best Management Practices (BMPs) to be implemented:

- a) Erosion, sediment, and velocity controls to keep the diverted flows from discharging sediment to the storm drain system.
- b) Storm drain shall be clean prior to diversion to prevent discharge of sediment from the storm drain into local waterways.

2. Natural springs and rising ground water that are intentionally diverted into the storm drain system.

Conditions under which allowed:

- All feasible alternatives to discharge of non storm water flow have been considered, including discharging to sewer, and are not possible.
- Ground water dewatering (from construction or pumped sources) may require a separate NPDES permit.
- Permanent diversions that exist prior to the approval of this BMP Plan and are required to protect public infrastructure and public safety shall be exempt, unless they pose a threat to water quality in which case the City of Ukiah reserves the right to require BMPs to protect water quality.

- No sources of contamination, as mapped on the State Regional Water Quality Control Board's Geotracker website (<http://geotracker.swrcb.ca.gov>), within one half mile of the diversion site.

Best Management Practices (BMPs) to be implemented:

- a) Segregate flow to prevent introduction of pollutants. Flow should be discharged to landscape areas if possible, or directly to storm drain system, so as to avoid flowing across paved surfaces or gutters where pollutants are present.
- b) Control flow rate of discharge to minimize erosion potential.
- c) Sediment, if present, shall be removed from discharge through settling or filtration prior to release.
- d) BMPs, such as sand bags, shall be utilized to prevent erosion and sediment transport.
- e) All sediment removed from discharge shall be collected and disposed of in a timely, legal and appropriate manner.

3. Uncontaminated ground water¹ infiltration [as defined by 40 CFR 35.2005(20)]² into structures where flows are diverted into the storm drain system. (Private utility vault dewatering requires a separate NPDES permit)

Conditions under which allowed:

- All feasible alternatives to discharge of non storm water flow have been considered, including discharging to sewer, and are not possible.
- Construction dewatering is not covered by this BMP Plan. Separate permit coverage from the North Coast Regional Water Quality Control Board is required.
- Applies to low volume dewatering of the City of Ukiah owned infrastructure only for routine maintenance and/or inspection purposes.
- Evaluate vault water using the attached Vault Dewatering Decision Flow Chart, or equivalent, to determine whether discharge to storm drain is allowed.

Best Management Practices (BMPs) to be implemented:

- a) No sources of contamination, as mapped on the State Regional Water Quality Control Board's Geotracker website (<http://geotracker.swrcb.ca.gov>), within one half mile of the diversion site.
- b) Sediment and debris, if present, shall be removed from discharge through settling or filtration prior to release.
- c) All sediment and debris removed from discharge shall be collected and disposed of in a timely, legal, and appropriate manner.

¹ NPDES permit for ground water dewatering is required within the North Coast Region.

²“(20) Infiltration. Water other than wastewater that enters a sewer system (including sewer service connections and foundation drains) from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow.”

4. Overflows or diversions from riparian habitats or wetlands where such flows are intentionally diverted into the storm drain system.

Conditions under which allowed:

- All feasible alternatives to discharge of non storm water flow have been considered, including discharging to sewer, and are not possible.
- Provided that all necessary permits or authorizations are received prior to diverting the flow.

Best Management Practices (BMPs) to be implemented:

- a) Segregate flow to prevent introduction of pollutants. Flow should be discharged to landscape areas if possible, or directly to storm drain system, so as to avoid flowing across paved surfaces or gutters where pollutants are present.
- b) Control flow rate of discharge to minimize erosion potential.
- c) Sediment, if present, shall be removed from discharge through settling or filtration prior to release.
- d) BMPs, such as sand bags, shall be utilized to prevent erosion and sediment transport.
- e) All sediment removed from discharge shall be collected and disposed of in a timely, legal and appropriate manner.

5. Flows from emergency fire fighting activity.

Conditions under which allowed:

- All feasible alternatives to discharge of non storm water flow have been considered, including discharging to sewer, and are not possible.

Best Management Practices (BMPs) to be implemented:

- a) If time and resources allow, plug the storm drain collection system for temporary storage and proper disposal of runoff.
- b) If time and resources allow, dam, dike or beam runoff from fires at industrial facilities or where hazardous materials are involved in the firefighting activities. Request REHIT if necessary for mitigation, monitoring, damming, diking, and testing equipment.
- c) Report any hazardous materials entering the storm drain system by calling a CalEMA # (OES#) 800-852-7550. Proper agencies will be notified.
- d) When putting equipment back into service do not drain any foam in an area that may enter the storm drain, direct foam to landscaped areas or graveled or green areas whenever possible and safe to do so without causing damage or erosion.
- e) Train fire safety employees on these BMPs, storm water discharge prohibitions, and wastewater discharge requirements.
- f) Establish a regular training schedule, train all new employees, and conduct annual refresher training.
- g) Use a training log or similar method to document training.
- h) Sediment and debris, if present, shall be removed from discharge through settling or filtration prior to release whenever possible.
- i) All sediment and debris removed from discharge shall be collected and disposed of in a timely, legal, and appropriate manner.

6. Flows from fire fighting training and equipment repair activities.

Conditions under which allowed:

- All feasible alternatives to discharge of non storm water flow have been considered, including discharging to sewer, and are not possible.

Best Management Practices (BMPs) to be implemented - Fire Fighting Training:

- a) Whenever possible, practice drills are to be performed in areas where runoff will be contained or directed to sewer.
- b) When practice drills must be performed in an area where runoff could potentially leave the site, the site shall be surveyed by the officer-in-charge prior to training activities to ensure that debris will not enter the storm drain system.
- c) As determined feasible, runoff from training drills or other non-emergency activities, will be directed to landscaped areas, graveled or green areas whenever possible and safe to do so without causing damage or erosion.
- d) Areas that have debris that could potentially enter the storm drain system as a result of the drill activities will not be used for training until the debris has been removed.
- e) Runoff from fire training activities will be dechlorinated by containment, aeration, volatilization, or with dechlorination tablets used by trained personnel before discharge to the storm drain system.
- f) Train employees on these BMPs, storm water discharge prohibitions, and wastewater discharge requirements.
- g) Establish a regular training schedule, train all new employees, and conduct annual refresher training.
- h) Use a training log or similar method to document training.

Best Management Practices (BMPs) to be implemented - Vehicle and Equipment:

- a) Wash vehicles at a specifically designated wash area that drains to the sanitary sewer or take vehicles to a commercial, city or county wash rack.
- b) If a wash rack connected to a sanitary sewer system is not available, runoff from vehicle and equipment washing activities shall be directed onto landscaped, graveled or green areas whenever possible and safe to do so without causing damage or erosion.
- c) Perform maintenance or repair work inside. Only emergency repairs and maintenance activities that do not involve fluids may be performed outdoors.
- d) Do not store leaking vehicles or equipment outdoors. Contain leak (drip pans), repair immediately or move indoors and repair.
- e) Good housekeeping and dry cleanup practices will be utilized as part of standard facility maintenance procedures.

7. Live Fire Training

Conditions under which allowed:

- All feasible alternatives to discharge of non storm water flow have been considered, including discharging to sewer, and are not possible.

Best Management Practices (BMPs) to be implemented:

- a) Live fire training activities will be pre-planned to allow integration of structural BMP barriers to control runoff as deemed necessary.
- b) Runoff from live fire training activities will be dechlorinated by containment, aeration, volatilization, or with dechlorination tablets used by trained personnel before discharge to the storm drain system.
- c) Train employees on these BMPs, storm water discharge prohibitions, and wastewater discharge requirements.
- d) Establish a regular training schedule, train all new employees, and conduct annual refresher training.
- e) Use a training log or similar method to document training.
- f) Sediment and debris, if present, shall be removed from discharge through settling or filtration prior to release.
- g) All sediment and debris removed from discharge shall be collected and disposed of in a timely, legal, and appropriate manner.

8. Fire hydrant testing, service and repair.

Conditions under which allowed:

- All feasible alternatives to discharge of non storm water flow have been considered, including discharging to sewer, and are not possible.

Best Management Practices (BMPs) to be implemented:

- a) Water must be dechlorinated using aeration and/or other appropriate means including infiltration into the ground. Chlorine residual in discharge shall not exceed 0.02mg/L.
- b) Utilize BMPs to increase the distance and removal of chlorine by volatilization before discharge to a storm drain.
- c) Segregate flow to prevent introduction of pollutants. Flow should be discharged to landscape areas if possible so as to avoid flowing across paved surfaces or gutters where pollutants are present.
- d) Control flow rate of discharge to minimize erosion potential.
- e) Water deterring devices such as hoses and sand bags, shall be utilized to prevent erosion and sediment transport.

9. Discharges from potable water sources.³

Conditions under which allowed:

- All feasible alternatives to discharge of non storm water flow have been considered, including discharging to sewer, and are not possible.
- Applies to water line and water lateral flushing.
- Water main breaks and fire hydrant knockdowns are considered “spills” and require a CalEMA notification due to the high quantity of flow.

Best Management Practices (BMPs) to be implemented:

- a) Must be dechlorinated and reoxygenated using aeration and/or other appropriate means including infiltration into the ground.
- b) Sediment and solids removed from discharge through settling or filtration.
- c) Segregate flow to prevent introduction of pollutants. Flow should be discharged to landscape areas if possible so as to avoid flowing across paved surfaces or gutters where pollutants are present.
- d) Control flow rate of discharge to minimize erosion potential.
- e) BMPs, such as sand bags, shall be utilized to prevent erosion and sediment transport.
- f) All sediment removed from discharge shall be collected and disposed of in a timely, legal and appropriate manner.

10. Utility vault dewatering.

Conditions under which allowed:

- All feasible alternatives to discharge of non storm water flow have been considered, including discharging to sewer, and are not possible.
- Evaluate vault water using the attached Vault Dewatering Decision Flow Chart, or equivalent, to determine whether discharge to storm drain is allowed.
- All private utility vault dewatering requires separate coverage under Order No. 2014-0174-DWQ, or as updated.
- Municipally owned utility vaults dewatering may be allowed if the following BMPs are implemented:

Best Management Practices (BMPs) to be implemented:

- a) Sediment and solids removed from discharge through settling or filtration.
- b) Segregate flow to prevent introduction of pollutants. Flow should be discharged to landscape areas if possible so as to avoid flowing across paved surfaces or gutters where pollutants are present.
- c) Control flow rate of discharge to minimize erosion potential.
- d) BMPs, such as sand bags, shall be utilized to prevent erosion and sediment transport.

³ The term applies to low volume, infrequent, and/or incidental releases that are innocuous from a water quality perspective. Releases may occur for discharges from potable water sources only with the implementation of appropriate BMPs, dechlorination prior to discharge. Discharges from utility vaults shall be conducted under coverage of a separate NPDES permit specific to that activity.

- e) All sediment removed from discharge shall be collected and disposed of in a timely, legal and appropriate manner.

11. Gravity flow from foundation, footing and crawl space drains.

Conditions under which allowed:

- All feasible alternatives to discharge of non storm water flow have been considered, including discharging to sewer, and are not possible.
- Discharges that exist prior to the approval of this BMP Plan shall be exempt, unless they pose a measurable threat to water quality in which case the City of Ukiah reserves the right to require BMPs to protect water quality.

Best Management Practices (BMPs) to be implemented:

- a) Sediment and solids removed from discharge through settling or filtration.
- b) If possible, segregate flow to prevent introduction of pollutants. Flow should be discharged to landscape areas if possible so as to avoid flowing across paved surfaces or gutters where pollutants are present.
- c) BMPs, such as sand bags, shall be utilized to prevent erosion and sediment transport.
- d) All sediment removed from discharge shall be collected and disposed of in a timely, legal and appropriate manner.
- e) No sources of contamination, as mapped on the State Regional Water Quality Control Board's Geotracker website (<http://geotracker.swrcb.ca.gov>), within one half mile of the diversion site.

12. Air conditioning condensate.

Discharge is prohibited.

13. Water from crawl space pumps.

Conditions under which allowed:

- All feasible alternatives to discharge of non storm water flow have been considered, including discharging to sewer, and are not possible.
- Discharges that exist prior to the approval of this BMP Plan shall be exempt, unless they pose a measurable threat to water quality in which case the City of Ukiah reserves the right to require BMPs to protect water quality.

Best Management Practices (BMPs) to be implemented:

- a) Sediment and solids removed from discharge through settling or filtration.
- b) If possible, segregate flow to prevent introduction of pollutants. Flow should be discharged to landscape areas if possible so as to avoid flowing across paved surfaces or gutters where pollutants are present.
- c) BMPs, such as sand bags, shall be utilized to prevent erosion and sediment transport.

- d) All sediment removed from discharge shall be collected and disposed of in a timely, legal and appropriate manner.
- e) No sources of contamination, as mapped on the State Regional Water Quality Control Board's Geotracker website (<http://geotracker.swrcb.ca.gov>), within one half mile of the diversion site.

14. Dechlorinated/ debrominated swimming pool discharges.

Discharge is prohibited.

15. Non-commercial car washing by residents of private vehicles.

Conditions under which allowed:

- All feasible alternatives to discharge of non storm water flow have been considered, including discharging to sewer, and are not possible.

Best Management Practices (BMPs) to be implemented:

- a) Preferred area is at commercial carwash or in an area where wash water infiltrates, such as vegetated areas.
- b) Pumps, vacuums or physical routing BMPs may be used to direct water to the sewer, landscape, or to areas for infiltration or re-use.
- c) Practices that minimize runoff, such as using a bucket and sponge, should be implemented.

16. Pooled storm water from treatment BMPs that are intentionally discharged to the storm drain system as part of maintenance activities.

Discharge is prohibited.

17. Municipal water tank maintenance

Conditions under which allowed:

- All feasible alternatives to discharge of non storm water flow have been considered, including discharging to sewer, and are not possible.

Best Management Practices (BMPs) to be implemented:

- a) A plan of action, duties, responsible persons, time lines, materials, equipment and contingency plans must all be made well in advance of the isolation and be discussed with all parties involved.
 - i. Make prior arrangements with RWQCB regulatory staff to discuss discharge plan.

- b) Dechlorination of flushing discharge water will be done regardless of location. Dechlorination equipment depending on the application can include some of the following items:
 - i. LPD-Chlor Tablets
 - ii. Vita-D-Chlor™ (Ascorbic Acid - Vitamin C chemistry)
 - iii. Hach Pocket Colorimeter to measure residual chlorine concentration.
- c) Water that has been hyperchlorinated shall not be discharged to the storm drain system, even after de-chlorination.
- d) Inspect and clear all storm drains, drainage channels for possible blockages.
- e) Inspect for possible erosion and sediment issues.
- f) Inspect possible sources of contamination in storm drains, drainage channels, i.e., oil cans, hazardous waste, garbage etc.
- g) Prior to each discharge, you must evaluate the impacts and minimize them to highest degree possible with a drainage plan to include the following:
 - i. Reason for the discharge
 - ii. Location of Reservoir site
 - iii. Site Map
 - iv. Water Quality data from City of Ukiah
 - v. Anticipated discharge
 - vi. Flow and quantity
 - vii. Prepare answers for any public concerns that may arise
- h) Any remaining water must be de-chlorinated and removed from the reservoir.
- i) Once the drainage path is clear, follow packaging instructions for de-chlorinating reagent dosing rates.
- j) Ascorbic Acid, a natural material, (Vitamin C) is relatively safe and preferred over other reagents.
- k) Care must be taken when using Sodium Thiosulphate due to its oxygen depleting properties when over applied.
 - i. After distributing the reagent through roof hatch and vents, monitor chlorine residual levels. A pocket colorimeter (Hach Company) may be used to measure residual chlorine concentration in the water.
- l) In conjunction with adding the reagent to the interior of the reservoir, as additional precaution a perforated container of ascorbic acid tablets at the first point possible after the water has left the reservoir.
- m) Ponding can be used to aid in detention time, as well as distributing de-chlorinating reagent by hand.
- n) Once there is a non-detectable residual, slowly begin to discharge.
- o) Inspect effluent flow and adjust accordingly.
- p) Occasionally re-sample effluent to ensure the absence of chlorine.
- q) If necessary, use hay bales to aid with flow, erosion and sediment issues

18. Surface Cleaning of Sidewalks and Plazas

Conditions under which allowed:

- All feasible alternatives to discharge of non storm water flow have been considered, including discharging to landscape or sewer, and are not possible.
- No soap or cleaning agent is used.
- Only small amounts of oil are present on the area being cleaned.

Best Management Practices (BMPs) to be implemented:

- a) Sweep, collect and dispose of debris.
- b) Clean all oil spots, if present, with water free methods prior to powerwashing.
- c) Dispose of all absorbent material, if used, in the trash.
- d) Place oil-absorbent boom around storm drain inlet during powerwashing if oil spots were present.
- e) Protect the storm drain inlet with filter material to remove pollutants.

19. Surface Cleaning of Building Exteriors and Walls

Conditions under which allowed:

- All feasible alternatives to discharge of non storm water flow have been considered, including discharging to landscape or sewer, and are not possible.
- No soap or cleaning agent is used.
- The building is unpainted glass or steel construction.
- The building is known to painted with lead free paint.

Best Management Practices (BMPs) to be implemented:

- a) Sweep, collect and dispose of debris that could be washed into the storm drain system.
- b) Protect the storm drain inlet with filter material to remove pollutants and paint chips.

20. Cleaning of Grocery Carts

Conditions under which allowed:

- All feasible alternatives to discharge of non storm water flow have been considered, including discharging to landscape or sewer, and are not possible.
- No soap or cleaning agent is used.
- No oil or grease will be discharged.
- Only cold water is used.

Best Management Practices (BMPs) to be implemented:

- a) Sweep, collect and dispose of debris that could be washed into the storm drain system.
- b) Protect the storm drain inlet with filter material to remove pollutants and paint chips.



July 30, 2015

Ms. Colleen Hunt
Regional Water Quality Control Board
North Coast Region
5550 SKYLANE BLVD STE A
SANTA ROSA, CA 95403-1072

RE: Addendum No. 1
City of Ukiah Non-Storm Water Best Management Practices (BMP) Plan

Dear Ms. Hunt:

Enclosed please find the City of Ukiah's Addendum Number 1 to its Non-Storm Water BMP Plan. This additional information is being submitted per your request.

The BMP's for discharge of incidental runoff from potable landscape irrigation were accidentally left out of the City's original BMP plan as an oversight. BMP's for this type of runoff have been included in the attached addendum. In addition, BMP's for discharges from drinking water systems have been included in this addendum.

I trust that this addendum will meet with your approval. Should you have further questions, please do not hesitate to contact Rick Seanor, Deputy Director of Public Works at 707-463-6296.

Sincerely,

A handwritten signature in blue ink, appearing to read "Tim Eriksen", is written over a light blue horizontal line.

Tim Eriksen
Director of Public Works/City Engineer

enc.

Addendum Number 1 - Non-Storm Water Discharge Best Management Practices (BMP) Plan

This Addendum Number 1 to the City of Ukiah Non-Storm Water Discharge Best Management Practices (BMP) Plan is being submitted as requested to supplement the City's existing Non-Storm Water Discharge BMP Plan.

Additional Categories of Non-Storm Water Discharges:

1. Discharge of incidental runoff from potable landscape irrigation.

Conditions under which allowed:

- Incidental runoff from potable landscape irrigation is allowed only on a temporary basis until one or more of the following BMP's are implemented.

Best Management Practices (BMPs) to be implemented:

- a) Repairs to potable landscape irrigation system shall be completed as soon as possible after observation of broken components.
- b) Check sprinkler systems frequently and adjust sprinklers so only lawn is watered and not the house, sidewalk, or street.
- c) Choose a water-efficient irrigation system such as drip irrigation for trees, shrubs, and flowers. Remember to turn irrigation systems off when it rains.
- d) Those customers irrigating with potable water shall comply with all applicable State of California regulations and City of Ukiah code sections.
- e) The City of Ukiah is currently under a Stage 1 Water Emergency. Each of the following actions is prohibited, unlawful and a violation of this code, except where necessary to address an immediate health and safety need or to comply with a term or condition in a permit issued by a State or Federal agency or when an alternate irrigation plan that demonstrates equal or greater savings is approved by Public Works: 1) The application of potable water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, nonirrigated areas, private and public walkways, roadways, parking lots, or structures; 2) Broadcast (nondrip) irrigation from sunup to sundown and more frequently than (A) every other day or (B) more than four (4) days per week and at a rate that causes ponding or puddling in the irrigated area; and 3) Drip irrigation at a rate that causes ponding or puddling in the irrigated area.
- f) The City of Ukiah has a Water Conservation Coordinator to assist water customers in complying with the City's Water Conservation measures and these BMP's.

2. Discharges from drinking water systems.

Conditions under which allowed:

- All feasible alternatives to discharge from drinking water systems have been considered, including discharging to sewer, and are not possible.
- No sources of contamination, as mapped on the State Regional Water Quality Control Board's Geotracker website (<http://geotracker.swrcb.ca.gov>), are located within one half mile of the discharge site.

Best Management Practices (BMPs) to be implemented:

- a) Segregate flow to prevent introduction of pollutants. Flow should be discharged to landscape areas if possible, or directly to storm drain system, so as to avoid flowing across paved surfaces or gutters where pollutants are present.
- b) Control flow rate of discharge to minimize erosion potential.
- c) Sediment, if present, shall be removed from discharge through settling or filtration prior to release.
- d) BMPs, such as sand bags, shall be utilized to prevent erosion and sediment transport.
- e) All sediment removed from discharge shall be collected and disposed of in a timely, legal and appropriate manner.
- f) Chlorine levels in discharges of superchlorinated water and within 300 feet of surface water shall not exceed 0.019 mg/L.
- g) Discharges from groundwater supply well operations exceeding 100 NTUs shall not be discharged.
- h) The discharge of superchlorinated, well development and/or rehabilitation and individual discharges greater than 325,850 gallons will need to include monitoring consistent with Order WQ 2014-0194-DWQ, General Order No. CAG140001, Statewide National Pollutant Discharge Elimination System, (NPDES) Permit for Drinking Water System Discharges to Waters of the United States, page E-3 at this web location:
http://www.waterboards.ca.gov/water_issues/programs/npdes/docs/drinkingwater/final_statewide_wqo2014_0194_dwq.pdf
- i) Discharge of 325,850 gallons or greater require prior notification to the North Coast Regional Water Quality Control Board.